

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (canceled).

2. (previously presented) The circuit arrangement of claim 8, wherein the power transistor switching stage comprises an output stage comprising an inductor and a capacitor with the output voltage provided across the capacitor.

3. (currently amended) The circuit arrangement of claim 8, wherein the active EMI filter comprises an amplifier stage having two transistors each controlled by a current sensor, the current sensor sensing the presence of a common mode current to a load connected to the active EMI filter,

each of said two transistors having a first terminal coupled at a common connection coupled to an isolating capacitor coupled to a ground line, the isolating capacitor passing a current to cancel the common mode current in said ground line,

each of said two transistors further having a second terminal coupled to a control terminal via a secondary winding.

4. (original) The circuit arrangement of claim 3, wherein the two transistors are complementary.

5. (original) The circuit arrangement of claim 3, wherein the ground line connects the load and the power transistor switching stage.

6. (previously presented) The circuit arrangement of claim 8, wherein the output voltage of the power transistor switching stage is DC.

7. (previously presented) The circuit arrangement of claim 8, wherein the output voltage of the power transistor switching stage is AC.

8. (currently amended) A circuit arrangement comprising a power transistor switching stage providing an output voltage and an active EMI filter having [[an]]first and second input terminals and [[an]]first and second output terminals and a ground return line connected to a ground return line terminal, the input terminals of the active EMI filter being connected to receive the output voltage of the power transistor switching stage and the output terminals of the active EMI filter providing a filtered output voltage,

wherein the power transistor switching stage is a switch mode power supply and the active EMI filter cancels common mode current that flows between the input terminals and the output terminals, substantially eliminating any current due to the common mode current in the ground return line connected to the ground return line terminal.

9. (previously presented) The circuit arrangement of claim 8, wherein the power transistor switching stage is a switch mode power supply converter.

10. (new) The circuit arrangement of claim 8, wherein the active EMI filter comprises a current transformer having first and second primary windings and first and second secondary windings, the first primary winding being connected between the first input terminal and the first output terminal and the second primary winding being connected between the second input terminal and the second output terminal.

11. (new) The circuit arrangement of claim 10, further comprising a load connected to the first and second output terminals and the ground, wherein when a common mode noise current flows between the load and the ground, a common mode current flowing between the input and output terminals will flow in the primaries and a differential mode current is canceled, the common mode current being reflected additively in the secondary winding and a normal mode current being canceled by polarization of the primaries.

12. (new) The circuit arrangement of claim 11, wherein the active EMI filter comprises two complementary PNP and NPN transistors, only one of the transistors being conductive depending upon a direction of a current in the secondary winding; and an isolating capacitor.

13. (new) The circuit arrangement of claim 12, wherein one of the two transistors is turned ON to allow a current generated in one of the secondary winding to flow through the isolating capacitor to cancel a ground noise current flowing in the ground line, thereby canceling the ground noise current flowing back to the input, the transistors being turned ON depending on a flow of the common mode current.